

Title (en)
MICROPOROUS POLYOLEFIN MEMBRANE AND BATTERY INCLUDING SAME

Title (de)
MIKROPORÖSE POLYOLEFINMEMBRAN UND BATTERIE DAMIT

Title (fr)
MEMBRANE MICROPOREUSE EN POLYOLÉFINE ET BATTERIE LA COMPRENANT

Publication
EP 3604414 A4 20201223 (EN)

Application
EP 18770211 A 20180315

Priority
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Abstract (en)
[origin: EP3604414A1] For heightening the safety of lithium-ion batteries while attaining increases in the energy density and output thereof, it is important to make a separator have a smaller maximum pore diameter, a higher piercing strength, and a smaller transverse-direction melting-heat shrinkage. However, achieving a balance thereamong has been difficult. The present invention addresses the problem of solving the difficulty. The present invention relates to a microporous polyolefin membrane characterized by having a piercing strength of 4.5 N or higher per membrane thickness of 20 μm and by comprising a polyolefin, the polyolefin having a molecular-weight distribution in which the proportion of components each having a weight-average molecular weight of 5.0×10^6 or higher is 0.6-1.5%.

IPC 8 full level
C08J 5/18 (2006.01); **H01M 8/1023** (2016.01); **H01M 8/1067** (2016.01); **H01M 8/1069** (2016.01); **H01M 50/417** (2021.01); **H01M 50/489** (2021.01); **H01M 50/491** (2021.01); **H01M 50/403** (2021.01); **H01M 50/406** (2021.01)

CPC (source: EP KR US)
B01D 71/261 (2022.08 - EP KR US); **C08J 5/18** (2013.01 - EP); **C08J 9/26** (2013.01 - KR); **C08L 23/06** (2013.01 - KR); **H01M 10/0525** (2013.01 - KR US); **H01M 50/417** (2021.01 - EP KR US); **H01M 50/463** (2021.01 - KR); **H01M 50/489** (2021.01 - EP KR US); **H01M 50/491** (2021.01 - EP US); **C08J 2323/06** (2013.01 - EP); **C08L 2207/068** (2013.01 - KR); **H01M 50/403** (2021.01 - EP US); **H01M 50/406** (2021.01 - EP US); **Y02E 60/10** (2013.01 - EP KR)

Citation (search report)
• [I] WO 2016024548 A1 20160218 - TORAY BATTERY SEPARATOR FILM [JP] & EP 3181622 A1 20170621 - TORAY BATTERY SEPARATOR FILM [JP]
• [A] WO 2016104790 A1 20160630 - TORAY BATTERY SEPARATOR FILM [JP] & EP 3239223 A1 20171101 - TORAY INDUSTRIES [JP]
• See also references of WO 2018173904A1

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